

## BROADCAST DATA DISTRIBUTION SYSTEM WITH ASYMMETRIC UPLINK/DOWNLINK BANDWIDTHS

### ABSTRACT

5       The broadcast data distribution system distributes directory and indexing  
information for the selection of viewing choices in broadcast and multicast networks  
with asymmetric uplink/downlink bandwidths. Examples of such systems include  
Digital Broadcast Satellite (DBS) and Cable Television (CATV) systems. More  
particularly, a preferred embodiment of the invention co-locates shared directory  
10 resources at directory servers which can provide the benefit of technology  
improvement through storage multiplexing to directory clients, which are assumed  
to have smaller, more heterogeneous and slowly-evolving memory and processing  
resources. The directory information stored at the directory clients is a subset of  
the information maintained at the directory servers selected on the basis of  
15 subscriber interest. This system automatically constructs both a target profile for  
each target object (program) that is broadcast, as well as a "target profile interest  
summary" for each subscriber, which target profile interest summary describes the  
subscriber's interest level in various types of target objects. The system then  
evaluates the target profiles against the subscribers' target profile interest  
20 summaries to generate a subscriber-customized rank ordered listing of target  
objects most likely to be of interest to each subscriber, so that the subscriber can  
select from among these potentially relevant target objects, which were  
automatically selected by this system from the plethora of target objects available  
on the data distribution system.

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